Agenda for Black Ash Symposium

Tuesday			
7:00-8:00 AM	Registration	Beaux Arts Ballroom	Bemidji State University, Bemidji, MN. To find the Beaux Arts Ballroom, please see the campus map at http://www.bemidjistate.edu/news_info/visitors/map.pdf
8:00 AM	Rob Harper Forest Supervisor USFS Chippewa Natl. Forest Cass Lake, MN	Welcome	Welcome from the Chippewa National Forest
8:10 AM	David Zumeta Executive Director MN Forest Resources Council St. Paul, MN	Welcome	Welcome from Minnesota Forest Resources Council and housekeeping details.
8:15 AM	Lee Frelich Director of MN Center for Hardwood Ecology Univ. of Minnesota St. Paul, MN	Ecology and distribution of black ash in Minnesota forests	Distribution and abundance of black ash in MN based on Forest Inventory Analysis (FIA) data. The ecological roles of black ash in temperate and boreal forest ecosystems. Species associated with black ash, including trees, herbaceous plants and wildlife. Potential ecosystem changes that may occur if black ash is removed from forest ecosystems.
9:00 AM	Brian Palik Research Ecologist USFS Northern Research Sta. Grand Rapids, MN	Black ash decline in northern Minnesota: Will emerald ash borer really make a difference?	Black ash decline is ongoing and extensive in parts of northern Minnesota. In many stands, there is little evidence for regeneration of healthy black ash or for successional replacement by other tree species. EAB invasion may only further an already severe decline and hasten retrogression to a shrubby or open condition.
9:45 AM	Break		

10:15 AM	Mike Benedict Acting Regional Forester BIA Midwest Regional Office Ft. Snelling, MN	Cultural and economic importance of black ash for native Americans.	Black ash has and continues to be an important part of the culture and economics throughout its range for utility and decorative baskets. Until recently there has been little interest to study or manage this species for either commercial or ecological purposes. However, within the last twenty years, there has been interest by tribes to learn more about black ash's ecology. Their interest is in developing silvicultural guides to better manage dwindling supplies of quality basket logs available locally to basket makers.
11:00 AM	Louis Iverson Research Landscape Ecologist USFS Northern Research Sta. Delaware, Ohio	What next? Potential species replacements for black ash in northern Minnesota in a changing climate	Current black ash distribution and abundance, along with the other ashes in North America will be reviewed based on USFS Forest Inventory data. Suitable habitat for black ash was modeled for the current time and under various scenarios of climate change for ~2040, 2070, and 2100. These scenarios include two carbon emissions scenarios and three global circulation models. Assessments of potential changes of current co-occurring species and additional species co-occurring with black ash to the south (e.g., Ohio) will also be evaluated, resulting in potential species mixes that will be suited for the area under a changed climate.
11:30 AM	Lunch is provided in Beaux Arts Ballroom		
12:30 PM	Steve Katovich Entomologist USFS State & Private Forestry St. Paul, MN	The status of emerald ash borer in North America	Emerald ash borer (EAB) was first reported in North America in the Detroit area in July of 2002. Unfortunately, the initial introduction had likely occurred in that area 8-10 years earlier and by 2002 EAB was already infesting the vast majority of ash trees over an extensive area around the Detroit epicenter. This presentation will chronicle the expanding range of EAB in North America. In addition, the current understanding on the life cycle and basic biology of EAB will be discussed. Signs and symptoms of an infestation will be shown.

1:15 PM	Daniel Herms Assoc. Chair of Dept. of Entomology Ohio State University Wooster, Ohio	Ecology of EAB invasion on forest communities: Susceptibility to invasion, ash demography and indirect ecological impacts	Patterns of ash mortality, seed bank dynamics, and regeneration in forests of the Huron River Watershed southeast Michigan since 2004 suggest a highly precarious future for ash. Effects of community composition on susceptibility to invasion reveal little potential for silvicultural approaches to EAB-proofing ash stands. Effects of ash mortality on canopy gap dynamics, course woody debris, and native fauna suggest that indirect ecological impacts of EAB will be pervasive.
2:00 PM	Break		
2:30 PM	Kathleen Knight Research Ecologist USFS Northern Research Sta. Delaware, Ohio	Dynamics of emerald ash borer infestation, ash mortality, succession, and invasive plant species in infested forest ecosystems: What we've learned in Michigan and Ohio	How fast does a forest stand of ash trees die? What replaces them? What spatial and temporal patterns of emerald ash borer infestation and ash mortality occur in ash stands? Models and results from five years of data from ash monitoring plots across Ohio and Michigan provide insights into the potential effects of EAB in Minnesota.
3:15 PM	Andrew Storer Entomologist Michigan Tech. University Houghton, MI	Not beyond hope: EAB survivors in Michigan	In the core area of EAB impact in Michigan, living ash trees with full canopies can be found. This presentation will discuss the possible reasons for their survival and our research into those possibilities.
4:00 PM	Louis Iverson Research Landscape Ecologist USFS Northern Research Sta. Delaware, Ohio	Modeling the risk of spread of EAB: Summer traffic is key	We have developed a model identifying risk levels for EAB infestation for Ohio and Michigan, based on roads and traffic density, human population density, basal area of ash, locations and size of campgrounds and wood products industries, and known locations of EAB. The model has two components, an 'insect flight' model that slowly diffuses EAB out from known locations, and an 'insect ride' model that allows for occasional outbreaks, especially in zones near high-traffic roads. We hope to also create such a model for Minnesota.
4:45 PM	End of afternoon session	Dinner on your own.	There are several places to conveniently eat dinner near and adjacent to the Hampton Inn, where the 7 PM session will be held.

7:00 PM	Jennifer Neptune Maine Indian Basket Makers Old Town, Maine Kelly Church Grand Traverse Band of Ottawa Chippewa Hopkins, MN	Location: Hampton Inn Duration 2 hours	All participants are invited to this informal gathering to meet Symposium presenters, and discuss EAB and black ash management. There will be a demonstration of black ash basket making (including log pounding), as well as a discussion and display of black ash basketry by three Native American basket makers. You won't want to miss this session, being held at the Hampton Inn.

Wednesday

8:00 AM	Andrew Storer Entomologist Michigan Tech. University Houghton, MI	Tools available for integrated pest management of EAB	An overview of the integrated pest management tools for EAB, including the impact of native parasitoids and the deployment of exotic parasitoids. The Ash Phloem Reduction strategy will be discussed in detail.
8:45 AM	Tony D'Amato Silviculture and Applied Forest Ecology Lab Univ. of Minnesota St. Paul, MN	Silvicultural options for black ash communities in the face of EAB	This talk will focus on outlining silvicultural approaches for managing black ash communities to increase resilience to EAB. In particular, discussions will center on potential alternate tree species to encourage across site types, regeneration methods to minimize hydrological impacts, and the applicability of different silvicultural treatments across the range of site conditions in which black ash is found.
9:45 AM	Steve Katovich Entomologist USFS State & Private Forestry St. Paul, MN	SLAM – An Integrated Strategy To SL.ow A.sh M.ortality In Emerald Ash Borer Outlier Sites	SLAM is an integrated strategy designed to suppress EAB population growth and delay the onset and progression of widespread ash mortality in isolated outlier sites. Basically SLAM projects are intended to delay the onset and advance of ash mortality, thus buying time for land managers to take proactive steps in dealing with the impending loss of the ash resource. SLAM projects attempt to integrate EAB survey efforts, ash surveys for distribution and amount, population suppression tools and tactics, regulatory activities, data management and evaluation, and outreach and communications. SLAM Pilot projects are being implemented and evaluated at sites in the Upper Peninsula (U.P.) of Michigan. This presentation will provide a description and update of the U.P. SLAM pilot projects.

10:15 AM	Break		
10:45 AM	Keith Jacobson Utilization & Marketing MN Dept. Natural Resources St. Paul, MN	Black ash markets in Minnesota	Markets for wood products have a tremendous impact on our ability to manage forest resources. The presentation will give an overview of current black ash markets in Minnesota, along with a look into the "crystal ball" of likely future markets and market opportunities. The presentation will also give an overview of marketing resources available to resource managers and landowners.
11:30 AM	Mark Abrahamson EAB Project Manager MN Dept. of Agriculture St. Paul, MN	Impact of state and federal quarantines on forest management	When EAB is discovered in a new area, state and federal quarantines follow closely behind. This presentation will cover the quarantines and regulations that will likely follow the discovery of EAB in northern Minnesota.
12:15 PM	Lunch is provided in Beaux Arts Ballroom		
1:15 PM	Jennifer Koch Research Biologist Northern Research Station Delaware, Ohio	The search for resistance to EAB: Can breeding be used to develop EAB-resistant North American ash species?	Efforts to identify sources of EAB-resistance to be used in breeding programs will be discussed including attempts at developing hybrids with Asian species of ash. The possibility of some level of EAB-tolerance existing in native ash species will also be introduced.
2:00 PM	Paula Pijut Research Plant Physiologist USFS Northern Research Sta. West Lafayette, IN	Development and conservation of *Fraxinus* spp. with resistance to the emerald ash borer	Development of adventitious shoot regeneration, micropropagation, rooting, regeneration of plants to the greenhouse and field, and genetic protocols for propagation and conservation of *Fraxinus* spp. with resistance to the emerald ash borer.
2:45 PM	Break		

3:15 PM	Robert Karffalt Director of National Seed Lab USFS National Seed Lab Dry Branch, GA	Ash seed collection protocols for the National Seed Lab for the preservation and restoration of the species.	The National Seed Laboratory is assembling range wide seed collections of all ash species to preserve genetic diversity for use by ash breeders and researchers seeking solutions to the EAB problem. GIS data mapping of preservation efforts, seed collection, handling, testing and storage protocols will be presented. The work is in cooperation with the Agricultural Research Service, Natural Resource Conservation Service and numerous other partners.
4:00 PM	David Zumeta Executive Director MN Forest Resources Council St. Paul, MN	Wrap-up	Wrap-up and field trip details, etc.
4:15 PM	End of day		
		Dinner on your own	

Thursday

Field trip

8:00 AM	Depart Bemidji Travel to site 1		Buses will load in the parking lot of the Bangsberg Fine Arts Complex. See "Visitor Parking" on map at http://www.bemidjistate.edu/news_info/visitors/map.pdf
9:00 AM	Site 1	Benedict, Jacobson	Seasonally flooded black ash stand. Little diversity. This stand was selectively harvested during the winter of 2009-2010.
10:00 AM	Site 2	Swanson, Church	Very wet black ash stand. Standing water throughout the year.
11:00 AM	Site 3	Hermes, Theisen	Seasonally flooded black ash stand with diversity.

11:45 AM	Depart Travel to Norway Beach		
12:15 PM	Lunch is provided at Norway Beach		
1:00 PM	Panel discussion at Norway Beach.	Gary Swanson, Rick Klevorn, Keith Karnes, Josh Stevenson, Mark Theisen, Cheryl Adams.	Discussion of ash management in view of EAB by selected land managers
2:00 PM	Depart Travel to Bemidji		
2:30 PM	Arrive in Bemidji		

End of the symposium